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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,902	12/20/2000	Valerie A. Simpson	9-13528-137US	4944

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EXAMINER

YUSSUF, SAJID

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/739,902

Applicant(s)

SIMPSON ET AL.

Examiner

Sajid A Yussuf

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/20/2000-02/10/2003.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-33 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 20 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2 / 02/10/2003.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Drawings***

1. New corrected drawings are required in this application because certain figures lack detail figure/apparatus/device names. Although the appropriate numbers exist, Examiner suggests labeling the devices. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. ***Claim(s) 1-33 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Hamami et al. (US Patent No. 5,959,972 and Hamami hereinafter)***

5. As per claim(s) 1, 14, 24 Hamami discloses maintaining the back-up link in a dormant state (i.e., idle) during normal operations of the network, such that no traffic is forwarded to the back-up link during normal operations of the network; and activating the back-up link in response to a network failure affecting communications between the IP and the primary ABR, such that traffic can

be routed between the IR and the alternate ABR through the back-up link, (See Column 4 Lines 38-50).

6. As per claim(s) 2, 15, 16, 25, 26, 29, 33 Hamami teaches the claimed invention as described in claim(s) 1, 14, 24 above and furthermore discloses assigning a backup interface type attribute (i.e., connections between ports and switches with virtual circuits) to the back-up link, (See Column 3 Lines 30-50); and controlling each of the IR and the alternate ABR such that: information respecting the back-up link is not advertised to adjacent routers; wherein backup link is idle and only activates if the primary link stops sending keep alive messages, (See Column 3 Lines 35-55), and the back-up link is not identified as a valid route in respective forwarding tables of each of the IR and the alternate ABR, (i.e., link is powered down), (See Column 6 Lines 1-27).

7. As per claim(s) 3, 17, 27 Hamami teaches the claimed invention as described in claim(s) 1-2, 14-16, 24-26 above and furthermore discloses detecting the network failure affecting communications between the IP and the primary ABR, (See Column 6 Lines 28-35); promoting the back-up link to an active status; and advertising the back-up link as a valid route, (See Column 6 Lines 45-57).

8. As per claim(s) 4 Hamami teaches the claimed invention as described in claim(s) 1-3 above and furthermore discloses the network failure is detected by the IR, (i.e., keep alive virtual circuit), (See Column 6 Lines 28-44).

9. As per claim(s) 5 Hamami teaches the claimed invention as described in claim(s) 1-4 above and furthermore discloses the step of promoting the back-up link to an active status is initiated by the IR, (See Column 7 Lines 4-17).

10. As per claim(s) 6,18,28 Hamami teaches the claimed invention as described in claim(s) 1-5, 14-17, 24-27 above and furthermore discloses detecting a loss of communications between the IR and the primary ABR, (i.e., link failure), (See Column 6 Lines 58-67); monitoring a link between the IR and the primary ABR for a predetermined period, to detect recovery of communications; wherein once recovered establishing connection back to primary, (See Column 7 Lines 1-17), and declaring a link failure if recovery of communications between the IR and the primary ABR is not detected within the predetermined period; wherein keep alive messages cease to be received, (See Column 6 Lines 58-67).

11. As per claim(s) 7,19 Hamami teaches the claimed invention as described in claim(s) 1-6 & 14-18 above and furthermore discloses a step of negotiating an adjacency relationship between the IR and the alternate ABR; wherein adjacency is interpreted as redundancy or similar configuration, (See Column 3 Lines 27-54).

12. As per claim(s) 8, 20, 30 Hamami teaches the claimed invention as described in claim(s) 1-7, 14-19, 24-29 above and furthermore discloses deactivating the back-up link in response to a network recovery affecting communications between the IP and the primary ABR, such that traffic flow through the back-up link between the IR and the alternate ABR is terminated, (i.e., recovery of primary link), (See Column 3 Lines 55-60 & Column 4 Lines 38-49).

13. As per claim(s) 9, 21, 31 Hamami teaches the claimed invention as described in claim(s) 1-8, 14-20, 24-30 above and furthermore discloses deactivating the back-up link comprises steps of: detecting the network recovery; and demoting the back-up link to an inactive status, (See Column 4 Lines 38-49).

14. As per claim(s) 10 Hamami teaches the claimed invention as described in claim(s) 1-9 above and furthermore discloses the network recovery is detected by the IR; wherein the detection is conducted by the keep alive virtual circuits, (See Column 6 Lines 28-44).

15. As per claim(s) 11 Hamami teaches the claimed invention as described in claim(s) 1-10 above and furthermore discloses the step of deactivating the back-up link to an inactive status is initiated by the IR, (See Column 4 Lines 38-49).

16. As per claim(s) 12, 22, 32 Hamami teaches the claimed invention as described in claim(s) 1-11, 14-21, 24-31 above and furthermore discloses detecting a recovery of communications between the IR and the primary ABR; monitoring a link between the IR and the primary ABR for a predetermined period, to detect loss of communications; and declaring a link recovery if loss of communications between the IR and the primary ABR is not detected within the predetermined period; wherein when the backup link takes over the transmission of data it is interpreted that in order for the main link to be restored there has to exist a detection/monitoring algorithm to declare the link recovery, (See Column 4 Lines 38-49 & Column 6 Lines 27-57).

17. As per claim(s) 13, 23 Hamami teaches the claimed invention as described in claim(s) 1-12 & 14-22 above and furthermore discloses the step of demoting the back-up link comprises a step of terminating an adjacency relationship between the IR and the alternate ABR, (i.e., putting in standby mode), (See Column 6 Lines 10-27).

### **Conclusion**

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Sees et al. (US Patent No. 6,222,821) discloses a system and method for reconfiguring a telecommunications network to its normal state after repair of fault;

b. Srikanth et al. (US Patent No. 6,556,547) discloses a method and apparatus for providing for router redundancy of non-internet protocols using the virtual router redundancy protocol;

c. Dighe et al. (US Patent No. 6,141,319) discloses a link based alternative routing scheme for network restoration under failure;

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajid A Yussuf whose telephone number is (703) 305-8752. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM and Alternate Fridays.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

21. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Sajid Yussuf  
Patent Examiner  
Technology center 2100  
16 April 2004

A handwritten signature in black ink, appearing to read 'Sajid Yussuf', written over a horizontal line.A handwritten signature in black ink, appearing to read 'Rupal Dharia', written above the printed name.

**RUPAL DHARIA**  
**SUPERVISORY PATENT EXAMINER**